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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/723,663	11/24/2003	Shinichi Suzuki	03716/HG	6208
1933	7590	04/10/2006	EXAMINER	
FRISHAUF, HOLTZ, GOODMAN & CHICK, PC			SHAH, MANISH S	
220 Fifth Avenue			ART UNIT	
16TH Floor			PAPER NUMBER	
NEW YORK, NY 10001-7708			2853	

DATE MAILED: 04/10/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/723,663

Applicant(s)

SUZUKI ET AL.

Examiner

Manish S. Shah

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 March 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

1. Claims 1-4 & 6-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ichinose et al. (# EP 1016542 A1) in view of Satake et al. (# US 5814685).

Ichinose et al. discloses a method for printing an ink-jet image, comprising the steps of: ejecting droplets of an ink on an ink-jet recording media, wherein the ink contains a water-soluble dye, water and an organic solvent ([0075], [0079]); and the ink-jet recording media contains a support (base material) having thereon at least one ink absorbing layer (lower layer) and the outermost layer (upper layer) of the ink-jet recording media (see Abstract) contains a porous structure containing a cationic polymer and inorganic pigment micro-particles ([0048], [0053]-[0055]).

- The inorganic pigment micro-particles are silica ([0053]-[0055]).
- The weight ratio of the cationic polymer to the inorganic pigment micro-particles is 1:5 to 1:50 (see Examples).
- The support is non-water absorptive ([0024]-[0027]).

Ichinose discloses all the limitation of the claimed invention except that the ink contains nonionic resinous micro-particles, wherein an average particle diameter of the

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nonionic resinous micro-particles is 10 to 200 nm, and a minimum film forming temperature of the nonionic resinous micro-particles or a glass transition temperature the nonionic resinous micro-particles is not more than 60 C. (2) The nonionic resinous micro-particles is contained in an amount of 0.2 to 10 weight % based on the total weight of the ink. (3) The nonionic resinous micro-particles are prepared by forcibly dispersing a nonionic dispersing agent and a monomer or the nonionic resinous micro-particles are prepared by self-dispersing a monomer having a hydrophilic group or a hydrophilic portion in the molecule.

Satake et al. teaches that to get the excellent stability in ejection and printing characteristics, the ink composition includes nonionic resinous micro-particles (column: 3, line: 25-55; see claim 1), wherein an average particle diameter of the nonionic resinous micro-particles is 20 to 150 nm (column: 3, line: 45-50), and a minimum film forming temperature of the nonionic resinous micro-particles or a glass transition temperature the nonionic resinous micro-particles is not more than 60 °C (column: 3, line: 25-40). (2) The nonionic resinous micro-particles is contained in an amount of 0.1 to 10 weight % based on the total weight of the ink (column: 5, line: 60-65). (3) The nonionic resinous micro-particles are prepared by forcibly dispersing a nonionic dispersing agent and a monomer or the nonionic resinous micro-particles are prepared by self-dispersing a monomer having a hydrophilic group or a hydrophilic portion in the molecule (column: 4, line: 20-67; column: 5, line: 1-65).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the ink composition of Ichinose et al. by the aforementioned

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teaching of Satake et al. in order to have the ink composition with excellent ejection stability and printing characteristics, which gives high quality printed image.

Allowable Subject Matter

2. Claim 10 is allowed.

The following is an examiner's statement of reasons for allowance:

The primary reason for allowance of claim 10 is that applicant's claimed invention includes, a method for printing an inkjet image including the steps of forming a film as a gas barrier layer including the nonionic resinous micro-particles on the surface of the inkjet recording media. It is this limitation, expressed in the claimed combination not found, taught or suggested in the prior art, that makes these claims allowable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

3. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manish S. Shah whose telephone number is (571) 272-2152. The examiner can normally be reached on 8:00am-4:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Manish S. Shah
Primary Examiner
Art Unit 2853

MSS

4/4/06